



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,366	03/05/2002	Chang-Su Kim	INTV.005A	7758
4586	7590	03/14/2005	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			VO, TUNG T	
			ART UNIT	PAPER NUMBER

2613

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,366

Applicant(s)

KIM ET AL.

Examiner

Tung Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-47 is/are allowed.
- 6) ☒ Claim(s) 48-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/02; 10/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. According to Amendment and Response filed on 11/23/2004, applicant has elected Species 11 directed to Fig. 5. Applicant further believes that Claims 10-50 read on Species 11. Further by this Amendment and Response, Applicant has canceled Claims 1-9. Therefore, the applicant's election without traverse of the figure 5 in the reply filed on 11/23/2004 is acknowledged.
2. Note that claims 1-9 have been canceled.
3. Claims 10-24 directed to the figures 3 and 4 of the specification of the present invention and drawn to the method of producing a video image having interpolating pixels to conceal errors.
4. Claims 25-50 directed to the figure 5 of the specification of the present invention and drawn to the method of producing a video signal by determining the video data is intra-coded or predictive coded to conceal the error, which is different from the method as described in the figures 3 and 4.

Since the applicant elected the figure 5, claims 25-50 will be examined. Claims 1-24 are withdrawn.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2613

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 48-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 5,841,477).

Re claim 48, Kim discloses a method of selecting an error concealment technique (118 of fig. 1) from among a plurality of error concealment techniques (108, 110, 120 of fig. 1) comprising:

maintaining an estimated error relating to at least a portion of an image (104 of fig. 1);  
using the estimated error to generate a plurality of projected error estimates  
corresponding to application of an error concealment technique (208 of fig. 2); and  
selecting the error concealment technique (118 of fig. 1) that provides the lowest projected error estimate.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 49 and 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 5,841,477) in view of Pearlstein et al. (US 5,568,200).

Re claims 49 and 50, Kim teaches the error concealment based on the pixel of the edge and the class of the image but not an error concealment technique from the plurality of error

Art Unit: 2613

concealment technique comprises setting all corresponding pixels to gray an error concealment technique from the plurality of error concealment technique comprises interpolating between a previous frame and a subsequent frame as claimed.

However, Pearlstein teaches an error concealment technique from the plurality of error concealment technique comprises setting all corresponding pixels to gray, and an error concealment technique from the plurality of error concealment technique comprises interpolating between a previous frame and a subsequent frame (col. 9, line 60-col.10, line 20).

Taking the teachings of Kim and Pearlstein as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the error concealment technique of Pearlstein into the error concealment method of Kim for the same purpose of concealing errors detected between pixels within a frame and between two frames. Doing so would allow a display controller could immediately present partial pictures to the viewer, which have improved picture quality.

#### ***Allowable Subject Matter***

4. Claims 25-47 are allowed.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim (US 6,704,363) discloses a method concealing error in moving pictures decompression system inter-frames or intra-frames.


Art Unit: 2613

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 703-308-5874. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TUNG VO**  
**PRIMARY EXAMINER**  
T.VO

Tung Vo  
Primary Examiner  
Art Unit 2613